## WHAT IS CLAIMED IS:

<ol> <li>1. A method comprisi</li> </ol>
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- receiving an indication to dynamically integrate a component into an
   executing application;
- 4 loading the component; and

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- 5 linking the component to the application by:
- obtaining the component's integration interface, the integration

  interface comprising methods for managing the component;

  and
  - invoking an initialize method of the integration interface.
    - 2. The method of claim 1, wherein the component is a new component that replaces an existing component, and the method additionally comprises invoking a replace method of the integration interface, the replace method to transition an existing state of the existing component into the new component.
- The method of claim 1, additionally comprising supporting the
   component's ability to allow other components to communicate with it by:
- invoking a publish method of the integration interface and specifying one
  or more interfaces to publish to other components; and
- storing the one or more interfaces in an interface clearinghouse.

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- The method of claim 3, additionally comprising supporting the
   component's ability to communicate with other components by:
   consulting the interface clearinghouse to determine one or more interfaces
   to retrieve from other component;
   invoking a retrieve method of the integration interface and specifying an
- invoking a retrieve method of the integration interface and specifying an interface of the one or more interfaces to retrieve from other component; and
- 8 using the retrieved interface to communicate with other components.
- The method of claim 1, additionally comprising invoking a stop method of the integration interface when the component is ready to be shut down.
- The method of claim 1, wherein the application is in a network, and said loading the component comprises retrieving the component from a member in the network.
- The method of claim 6, wherein the member comprises a peer.
- 1 8. The method of claim 7, wherein the peer comprises another component loader in the network.
- 1 9. The method of claim 6, wherein the member comprises a host in the network.
- 1 10. An apparatus comprising:
- 2 a component loader to load requested components of a plurality of

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3		components into an application, the plurality of components
4		corresponding to an application, and each implementing an
5		integration interface having a number of methods for managing
6		loaded components;
7		an interface clearinghouse to store and manage interfaces corresponding
8		to the loaded components; and
9		a messaging mechanism for external entities to communicate with the
10		loaded components.
1	11.	The apparatus of claim 10, wherein the integration interface comprises:
2		an initialize method to transition a given component into a state to operate
3		and
4		a stop method to transition the given component into a destroy state.
1	12.	The apparatus of claim 11, additionally comprising a replace state to
2		replace an old component with a new component by transitioning an
3		existing state of the old component to the new component.
1	13.	The apparatus of claim 10, wherein the application is in a network, and
2		said loading the component comprises retrieving the component from a
3		member in the network.
1	14.	A system comprising:

an integration interface having a plurality of methods for managing a

3		component;
4		at least one component that implements the integration interface;
5		a components repository for storing the at least one component;
6		a component framework corresponding to an application to manage the at
7		least one component using the integration interface, the component
8		framework having:
9		a component loader to load requested components from the
10		components repository into an application;
11		an interface clearinghouse to store and manage interfaces
12		corresponding to the loaded components; and
13		a messaging mechanism for external entities to communicate with
14		the loaded components.
1	15.	The system of claim 14, additionally comprising a communication bus for
2		inter-components communication.
1	16.	The system of claim 14, wherein the communication bus is established
2		after at least one call to a publish method and a retrieve method of the
3		integration interface.
1	17.	The system of claim 14, wherein the application is in a network, and said
2		loading the component comprises retrieving the component from a

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member in the network.

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- A machine-readable medium having stored thereon data representing 18. 1 sequences of instructions, the sequences of instructions which, when 2 executed by a processor, cause the processor to: 3 receive an indication to dynamically integrate a component into an 4 executing application; 5 load the component; and 6 link the component to the application by: 7 obtaining the component's integration interface, the integration 8 interface comprising methods for managing the component; 9 and 10 invoking an initialize method of the integration interface. 11 The machine-readable medium of claim 18, wherein the component is a 1 19.
  - new component and the instructions cause the processor to replace an existing component by invoking a replace method of the integration interface, the replace method to transition an existing state of the existing 4
  - component into the new component. 5
  - The machine-readable medium of claim 18, the instructions causing the 1 20. processor to additionally support the component's ability to allow other 2 components to communicate with it by: 3
  - invoking a publish method of the integration interface and specifying one 4

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. 5	;		or more interfaces to publish to other components; and
6	5		storing the one or more interfaces in an interface clearinghouse.
1		21.	The machine-readable medium of claim 20, the instructions causing the
2	2		processor to additionally support the component's ability to communicate
3	3		with other components by:
. 4	4		consulting the interface clearinghouse to determine one or more interfaces
4	5		to retrieve from other component;
(	6		invoking a retrieve method of the integration interface and specifying an
,	7		interface of the one or more interfaces to retrieve from other
;	8		component; and
•	9		using the retrieved interface to communicate with other components.
	1	22.	The machine-readable medium of claim 18, wherein the application is in a
	2		network, and said loading the component comprises retrieving the
	3		component from a member in the network.
	1	23.	An apparatus comprising:
	2		at least one processor; and
	3		a machine-readable medium having instructions encoded thereon, which
	4		when executed by the processor, are capable of directing the
	5		processor to:
	6		receive an indication to dynamically integrate a component into an

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7		executing application;
8		load the component; and
9		link the component to the application by:
10		obtaining the component's integration interface, the
11		integration interface comprising methods for
12		managing the component; and
13		invoking an initialize method of the integration interface.
1	24.	The apparatus of claim 23, wherein the component is a new component
2		and the instructions cause the processor to replace an existing component
3		by invoking a replace method of the integration interface, the replace
4		method to transition an existing state of the existing component into the
5		new component.
1	25.	The apparatus of claim 23, the instructions causing the processor to
2		additionally support the component's ability to allow other components to
3.		communicate with it by:
4		invoking a publish method of the integration interface and specifying one
5		or more interfaces to publish to other components; and
6		storing the one or more interfaces in an interface clearinghouse.
1	26.	The apparatus of claim 25, the instructions causing the processor to
2		additionally support the component's ability to communicate with other

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3		components by:
4		consulting the interface clearinghouse to determine one or more interfaces
5		to retrieve from other component;
6		invoking a retrieve method of the integration interface and specifying an
7		interface of the one or more interfaces to retrieve from other
8		component; and
9		using the retrieved interface to communicate with other components.
1	27.	An apparatus comprising:
2		means for loading requested components of a plurality of components into
3		an application, the plurality of components corresponding to an
4		application, and each implementing an integration interface having
5		a number of methods for managing loaded components;
6		means for storing and managing interfaces corresponding to the loaded
7		components; and
8		means for external entities to communicate with the loaded components.
1	28.	The apparatus of claim 27, wherein the integration interface comprises:
2		means for transitioning a given component into a state to operate; and
3		means for transitioning the given component into a destroy state.

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The apparatus of claim 27, additionally comprising means for replacing an

- old component with a new component by transitioning an existing state of the old component to the new component.
- The apparatus of claim 27, wherein the application is in a network, and said means for loading the component comprises means for retrieving the component from a member in the network.

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